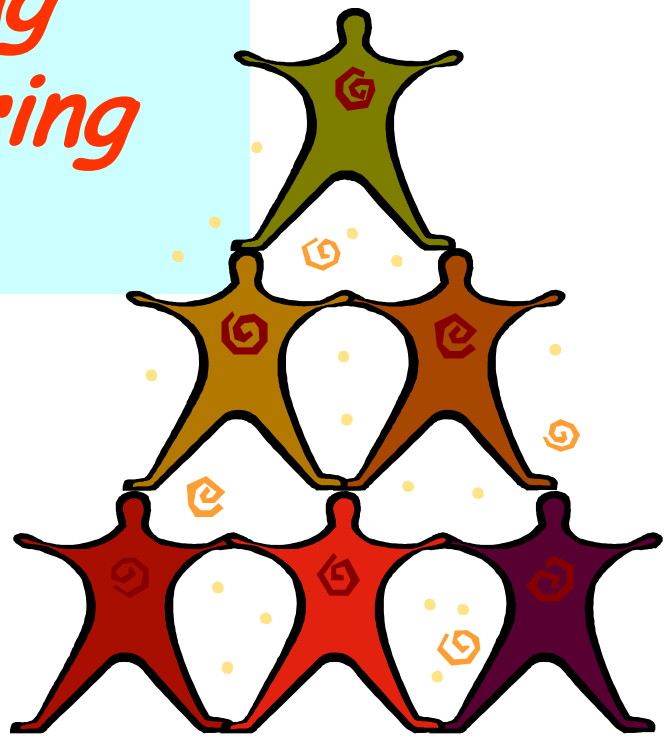
NATIONAL WATER QUALITY MONITORING COUNCIL

Working Together for Clean Water

NWQMC

Building & Sustaining Collaborative Monitoring Councils



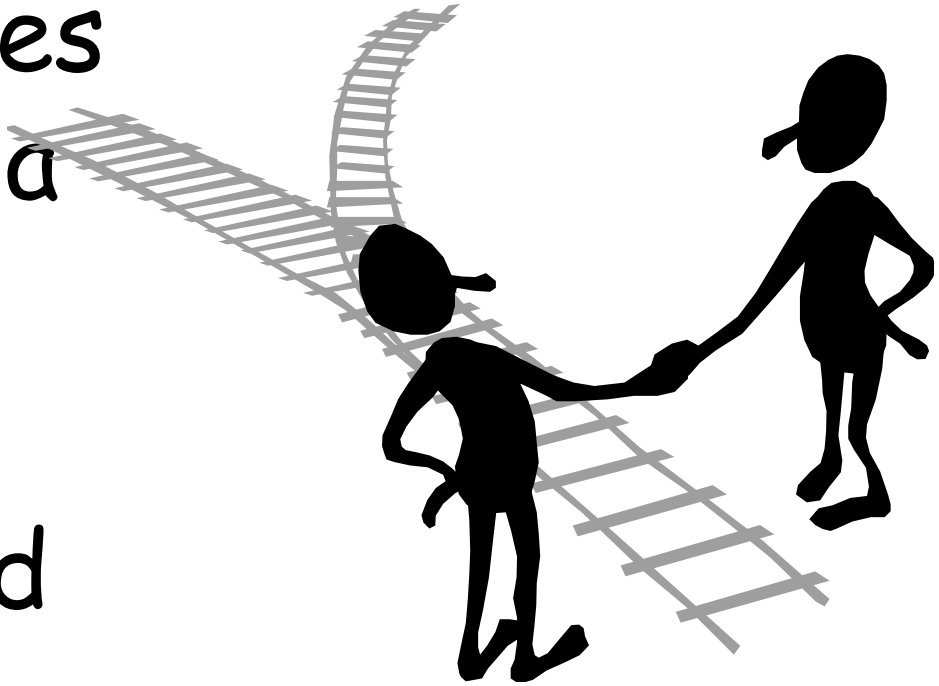
Chattanooga 2004 workshop
Monday, May 17

DRAFT OUTLINE FOR PART 1

Time	
8:30-9:15	Introduction to session—(45 minutes) • Introduction—Why are we all here? • Overview of framework and relationship to 3 Cs—what are the **values** of building collaborative monitoring councils?? • Overview of state/regional councils (different models, goals, structures)
9:15-9:45	Identifying monitoring communities & stakeholders (large group discussion)
9:45-10:45	Building a monitoring map, Part 1 —What does monitoring look like NOW in my state/region
10:45-11:15	What's in it for me…Beginning to address WIFM
11:15-11:30	Wrap-Up of morning session

INTRODUCTION TO WORKSHOP...

Development of a national monitoring strategy requires that we create a **framework** for enhancing ***collaboration*** and ***comparability*** among programs



What is a Monitoring Framework?

- The process of monitoring and assessment should principally be seen as a *sequence of related activities* that
  - start with the definition of information needs and
  - end with the use of the information product.

UN/ECE Task Force on Monitoring and Assessment (2000)

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The Outer Circle Holds the Framework Together

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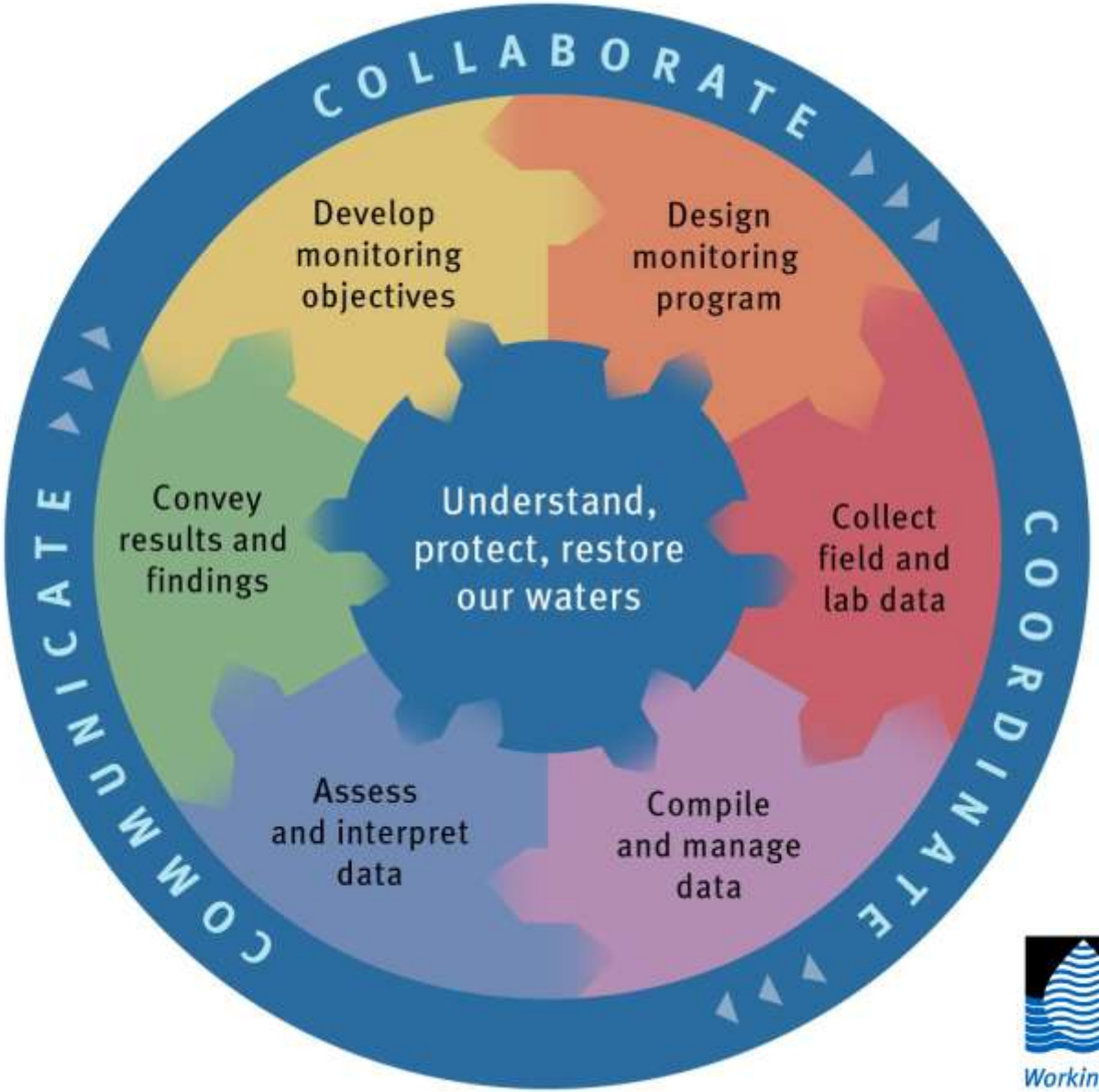
The Framework for Monitoring



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Develop Monitoring Objectives

- Why are you monitoring?
- Who will use the data?
- What will the data be used for?

Education/ Awareness → Assess Impairment → Legal/ Regulatory

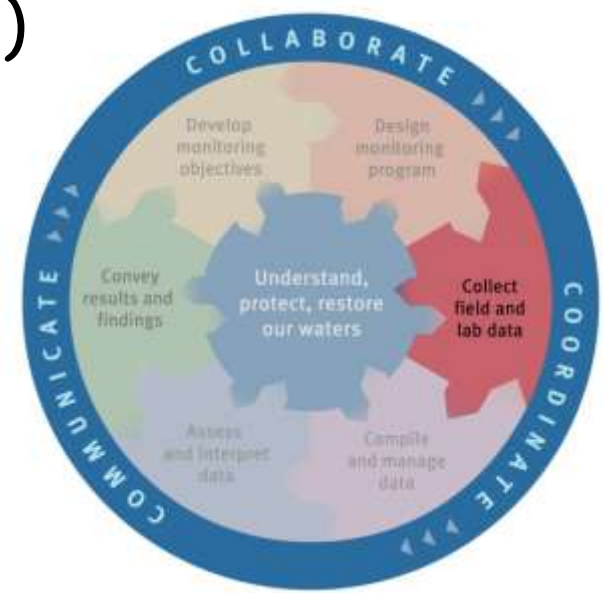
Increasing Time - Rigor - QA - Expense

Design Monitoring Program

- Identify the environmental setting and water-quality issues
- Articulate and document overall monitoring/information strategy
- Public participation process
- Communication strategy
- Sampling network design
  - Site selection, what to monitor
  - How often, for how long
- What methods to use for all aspects of program from sample collection to reporting results

Collect Field and Lab Data

- Identify optimal methods (NEMI)
- Sample management plan
- Train and certify personnel
- Document sampling site location
  - (GPS, photos)
- Coordination with partners
- Laboratory operations coordination
- Laboratory Analyses
- Data handling/Data audits/Meta data



Compile and Manage Data

- Capture field and lab data
  - electronic/PDA or paper or both
- Spreadsheet or Database ?
- Database design / Security features
- Data validation/audits
- Meta data documentation
  - Water Quality Data Elements (WQDE)
- Data swap with partners
- Raw data products
- Archiving data
- Data Verification

Assess and Interpret Data
What Does It Say???

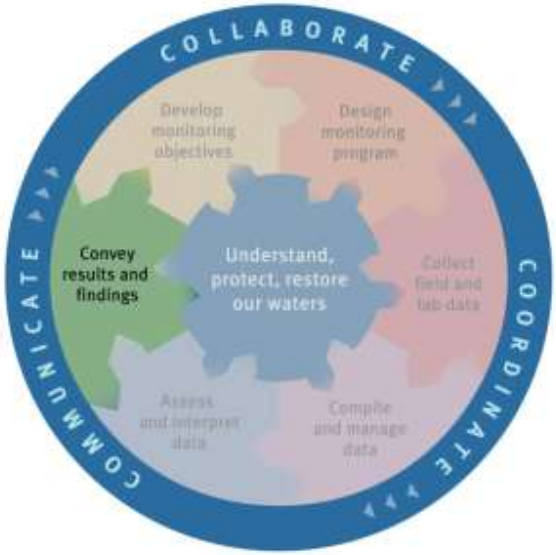
- Summary statistics
  - Max, min, mean, range
  - Parametric/non-parametric
- Meets State Standards?
- Threshold (action) levels
- Time series plots
- Indicators/indices
- GIS
- Water quality models

Assess and Interpret Data
What Are the Implications???

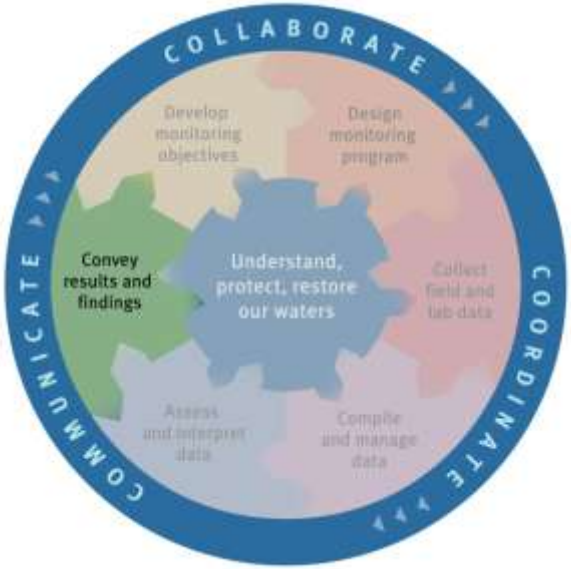
- historical evaluation
- water quality relevance
- management relevance
- professional judgment
- information goals met?

Convey Results & Findings

- Data summary
  - Oral and written reports
    - to public and managers
- Water quality information displays
- News releases
- Fact sheet
- Web page
- Management plan
- Interested party review
- Professional, peer reviewed, journal paper



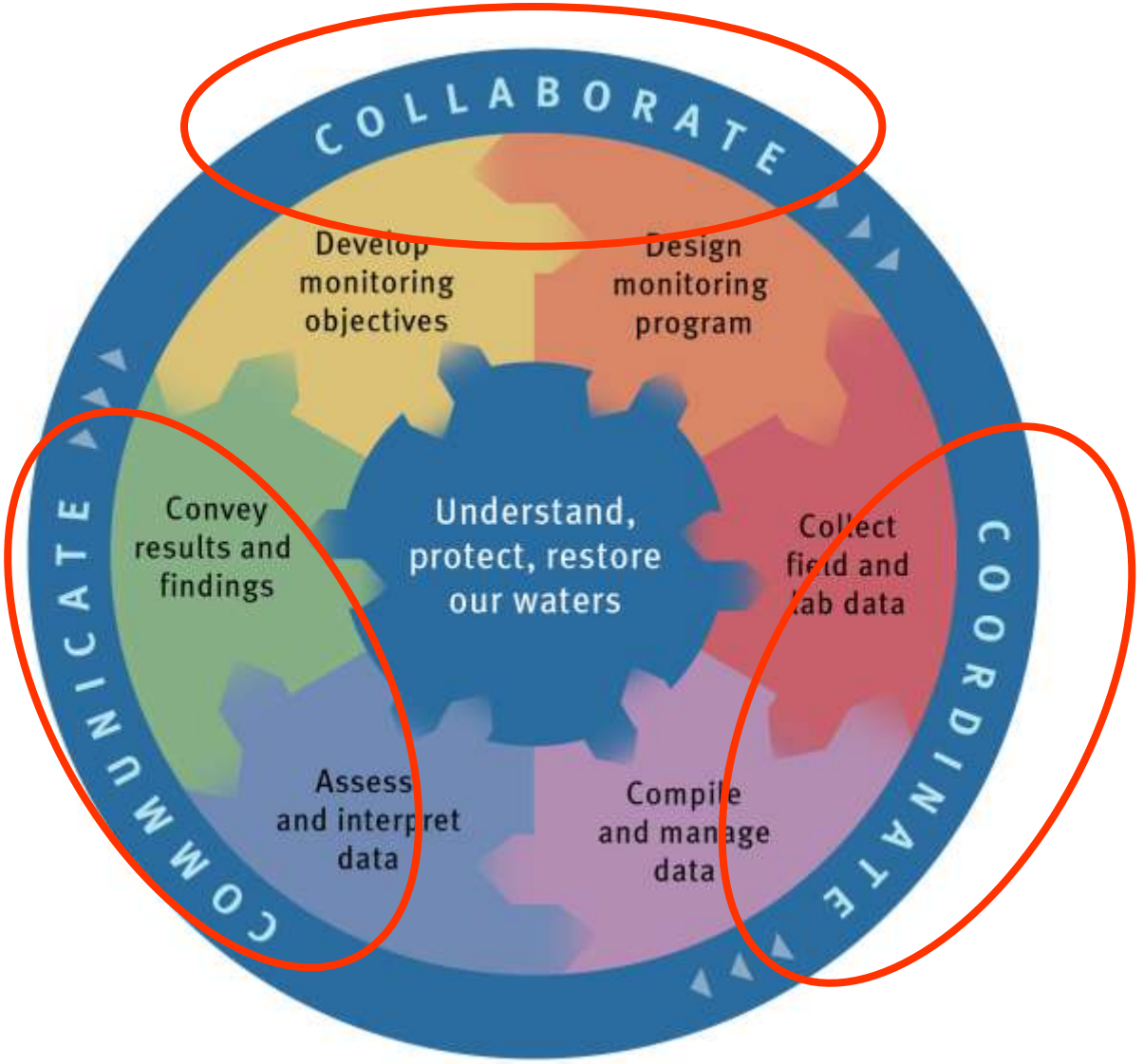
Evaluate Program



- Did we meet our objectives?
- Identify monitoring problems?
- Evaluate cost
- Feedback from information users
- New opportunity to communicate, coordinate and collaborate
- Independent vs. internal review?
- "Lessons Learned"
- Adjustments? Redesign?

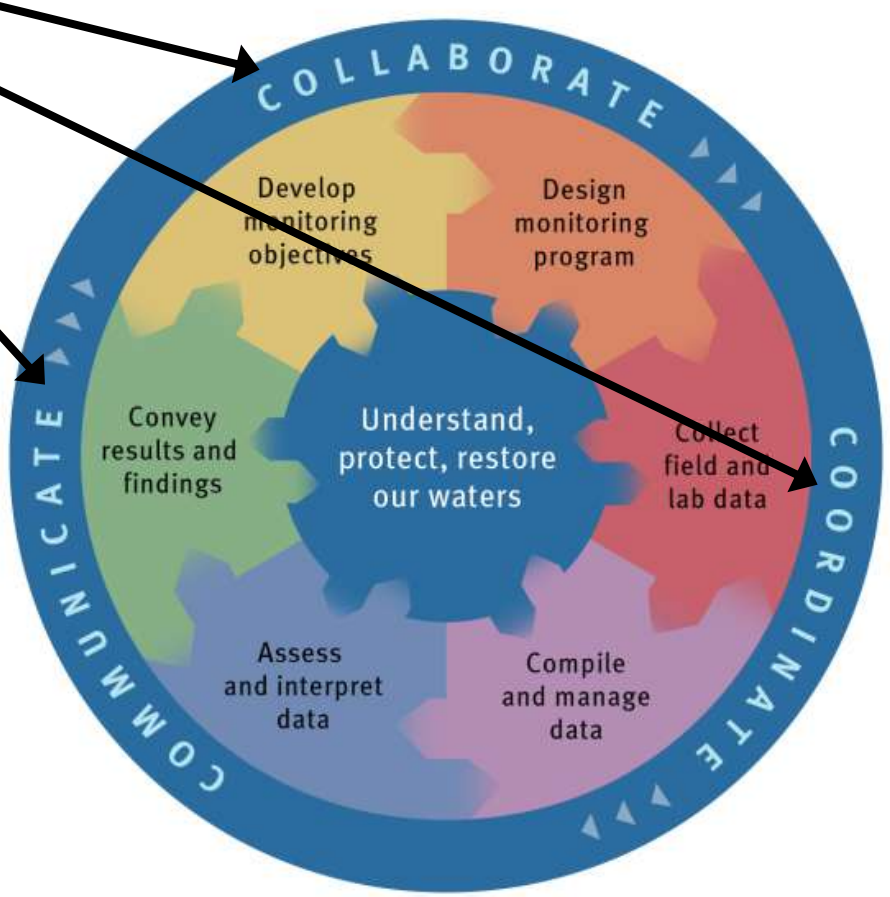
Getting Back to the 3C's:

- The 3Cs:
  - Communicate
  - Coordinate
  - Collaborate
- Integrating the 3Cs into the monitoring process is more likely to enable us to truly understand, protect, and restore our waters



State & regional Councils are institutiona l vehicles for the 3Cs

The 3Cs within and among monitoring entities are necessary to effectively and accurately address our fundamental questions



- *What is the condition of our surface, ground, estuarine, and coastal waters?*
- *Where, how, and why are water quality conditions changing over time?*
- *Where are the problems and what is causing them?*
- *Are programs to prevent or remediate problems working effectively?*
- *Are water quality goals and standards being met?*

Collaboration is hardest to get to

SHARED GOALS

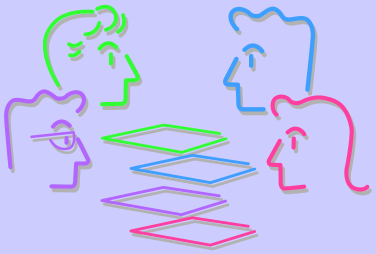
COLLABORATE

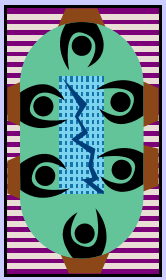
Participants identify and commit to shared goals and work collectively to deal with issues that they cannot solve individually; partnerships, alliances, teams.

VERY difficult

COORDINATE

Participants link, harmonize or synchronize interaction and activities.





COMMUNICATE

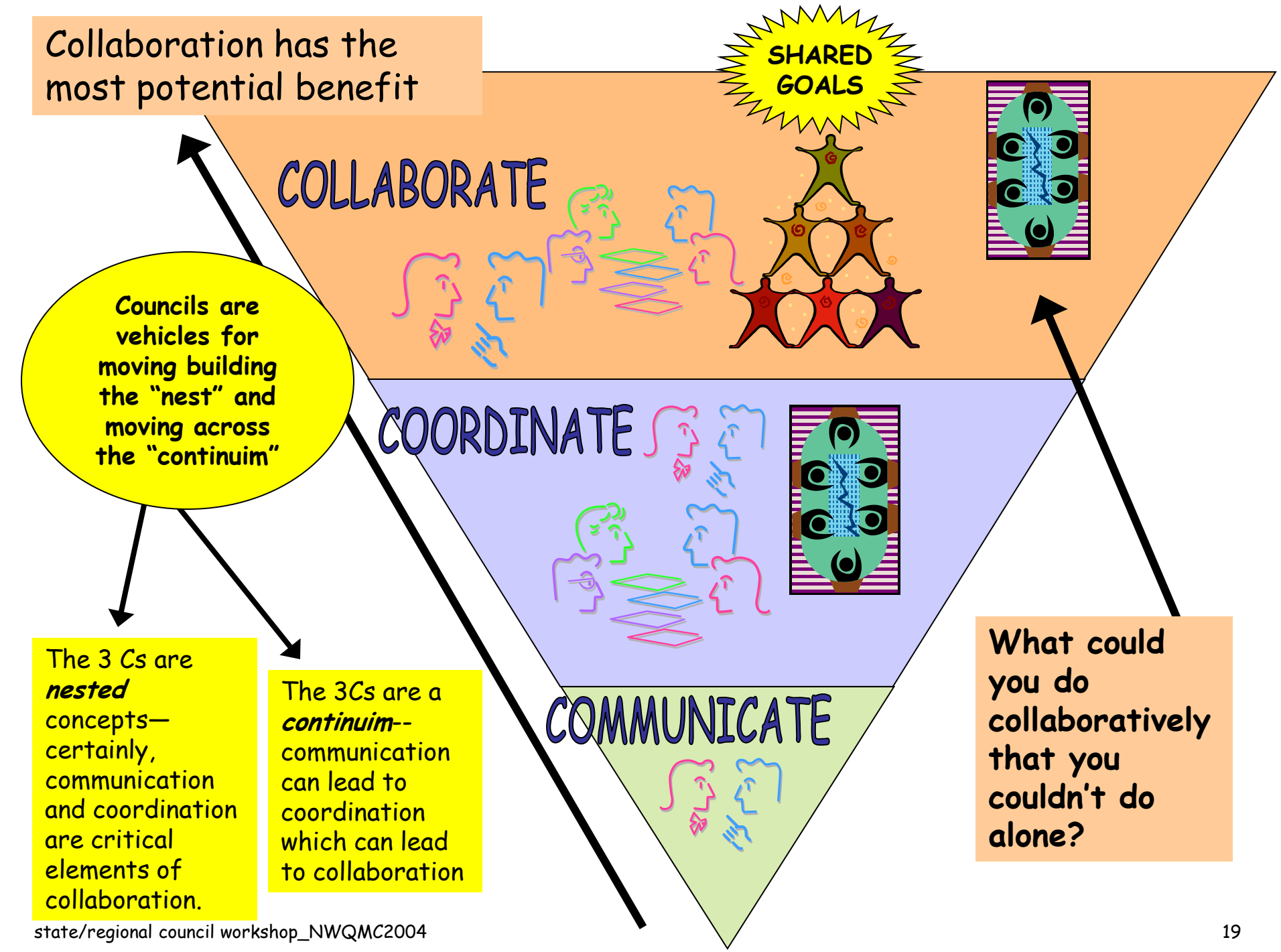
Participants convey information; can be one way or an exchange of thoughts, messages, or ideas

Relatively simple

It is easier to tell you about my goals & activities than to coordinate our activities.

Harder still is developing a goal together and implementing the activities needed to reach it!

Collaboration has the most potential benefit



Councils are vehicles for moving building the "nest" and moving across the "continuim"

The 3 Cs are ***nested*** concepts—certainly, communication and coordination are critical elements of collaboration.

The 3Cs are a ***continuim***--communication can lead to coordination which can lead to collaboration

What could you do collaboratively that you couldn't do alone?

Types of Groups Working on the 3 C's

- Watershed Groups or Networks – local efforts to improve a watershed
- Watershed Collaboratives – local or regional efforts to pool resources to respond to similar monitoring needs
- **State and Regional Councils – efforts to develop monitoring approaches that allow effective use of information collected for differing purposes**

Assessment of State, Interstate, or Regional Watershed Monitoring Councils

- Council name, contact information
- Sponsoring organization(s)
- General description of your membership
- When was your Council created and why?:
- Charter, bylaws or other adopted written Council operating procedures?
- Meeting Schedule?

Assessment of State, Interstate, or Regional Watershed Monitoring Councils (cont.)

- Sub-committees?
- Funding?
- Staff Support?
- Products or Publications?
- Special Projects/Significant Accomplishments?
- Networking via Web, list serve, document sharing?

Types of Councils

- Legislatively mandated – **Oklahoma**, Texas, WI GW
- Organized voluntarily – Maryland, Virginia, Colorado, **Lake Michigan**, Montana, New England
- State agency organized – Kentucky
- Multi-State agreement – Chesapeake Bay

Common Council Themes

- Communication
- Coordination
- Collaborative Watershed Based Monitoring
- Document Monitoring Activities
- Efficient Use of Monitoring Resources
- Raise Public Awareness
- Inclusiveness

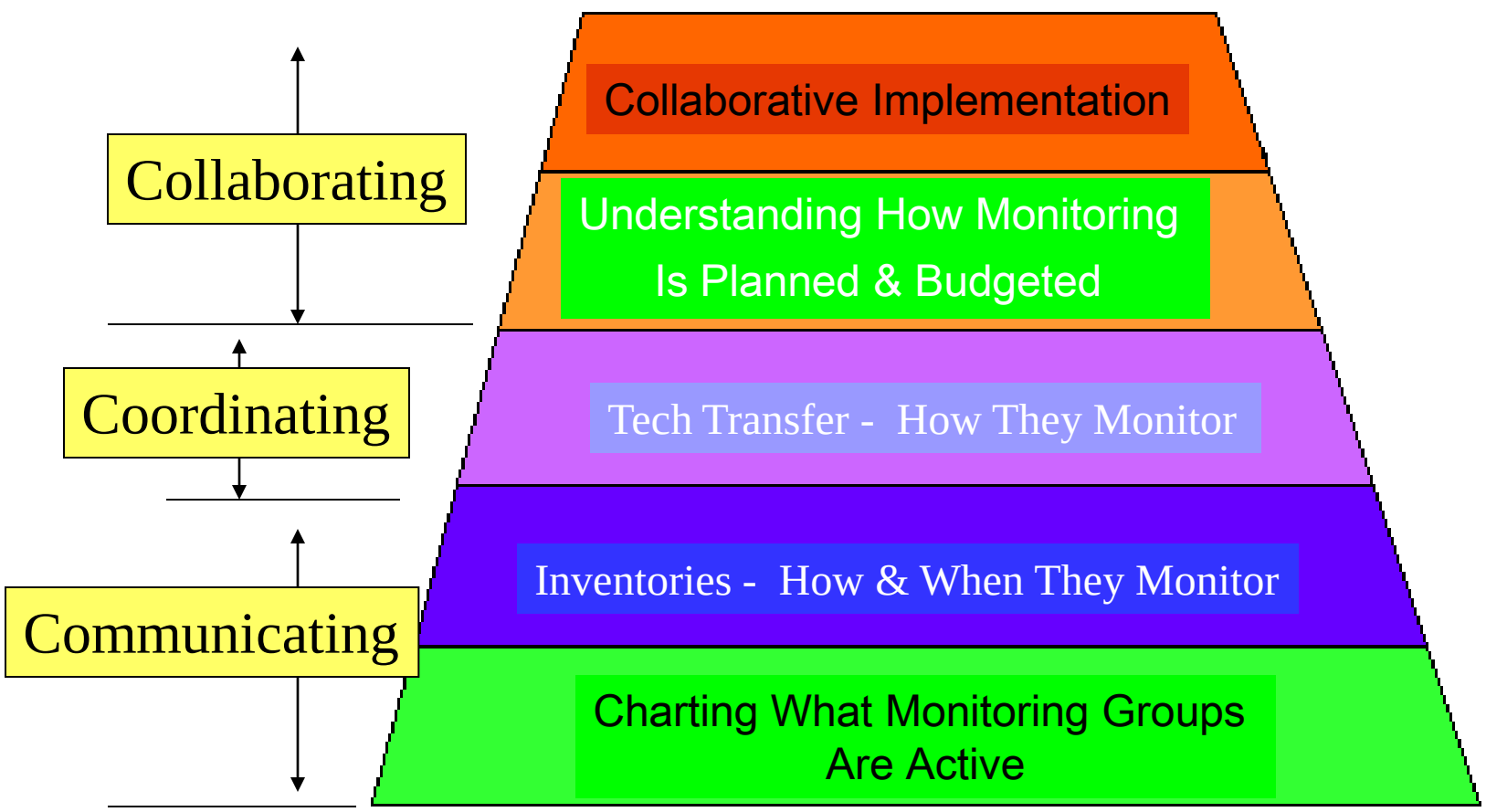
Common Council Activities

- Network design and coordination (6)
- Data Inventory and management (includes GIS) (6)
- Annual Conferences (5)
- Field and analytical methods and QAQC (5)
- Data Interpretation or Reporting (2)
- Issues Based Groups (3) – GW, TMDLs, etc.

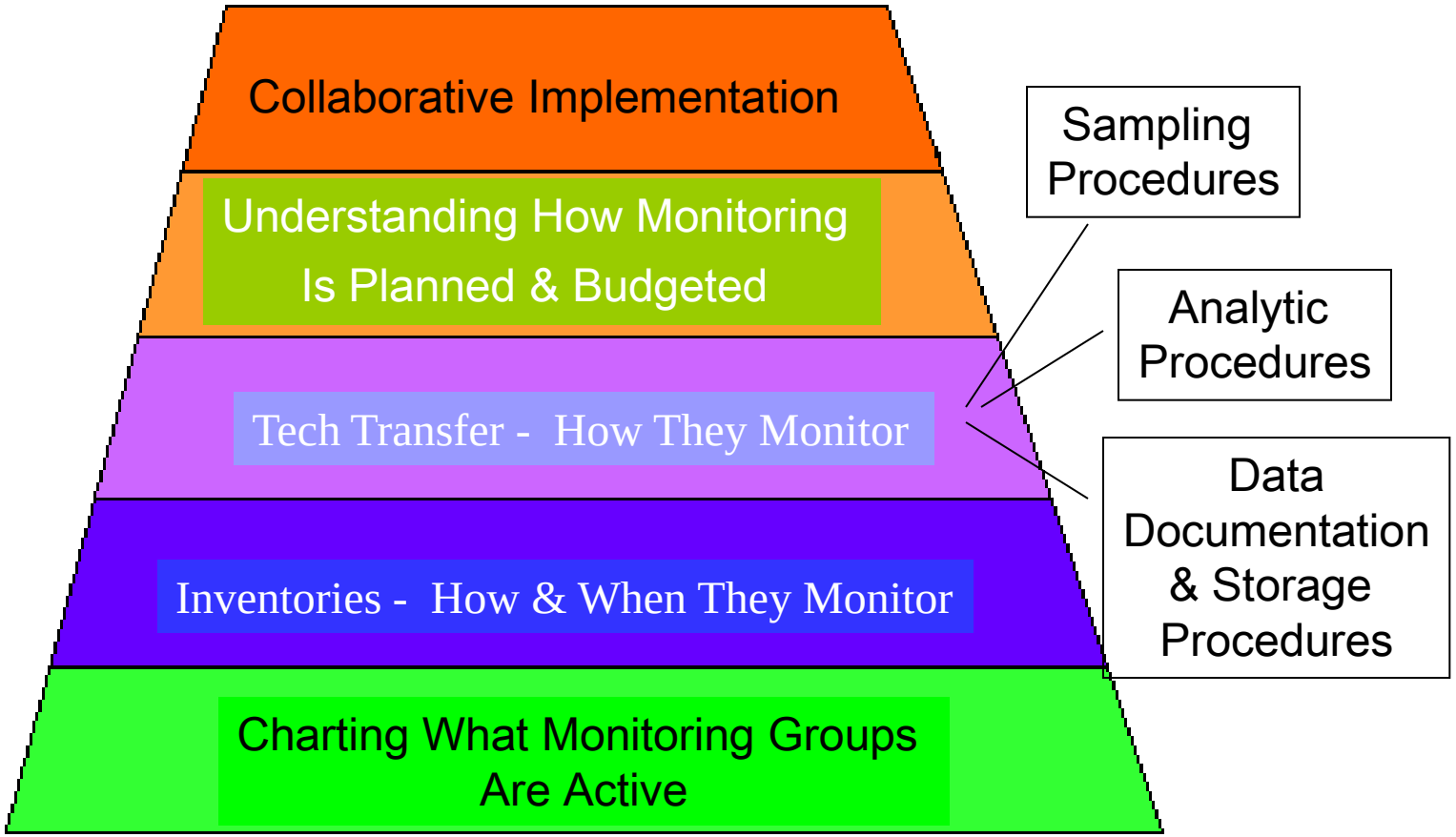
Common Concerns

- Funding/Institutional Support
- Time - more meetings
- Efficiency – reinventing the wheel, time to build trust
- Capacity Building

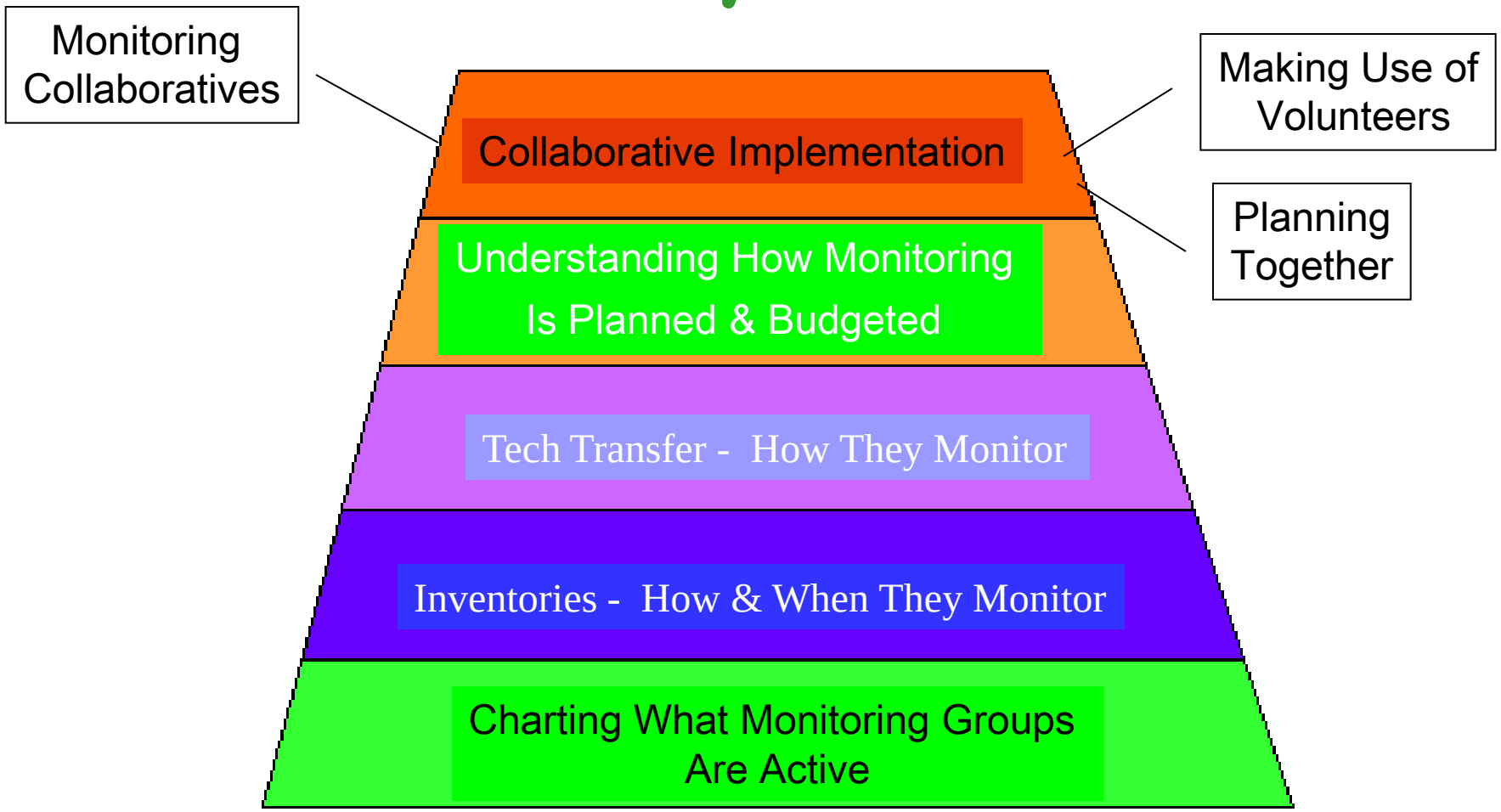
Monitoring Councils Hierarchy of Needs



Monitoring Councils Hierarchy of Needs



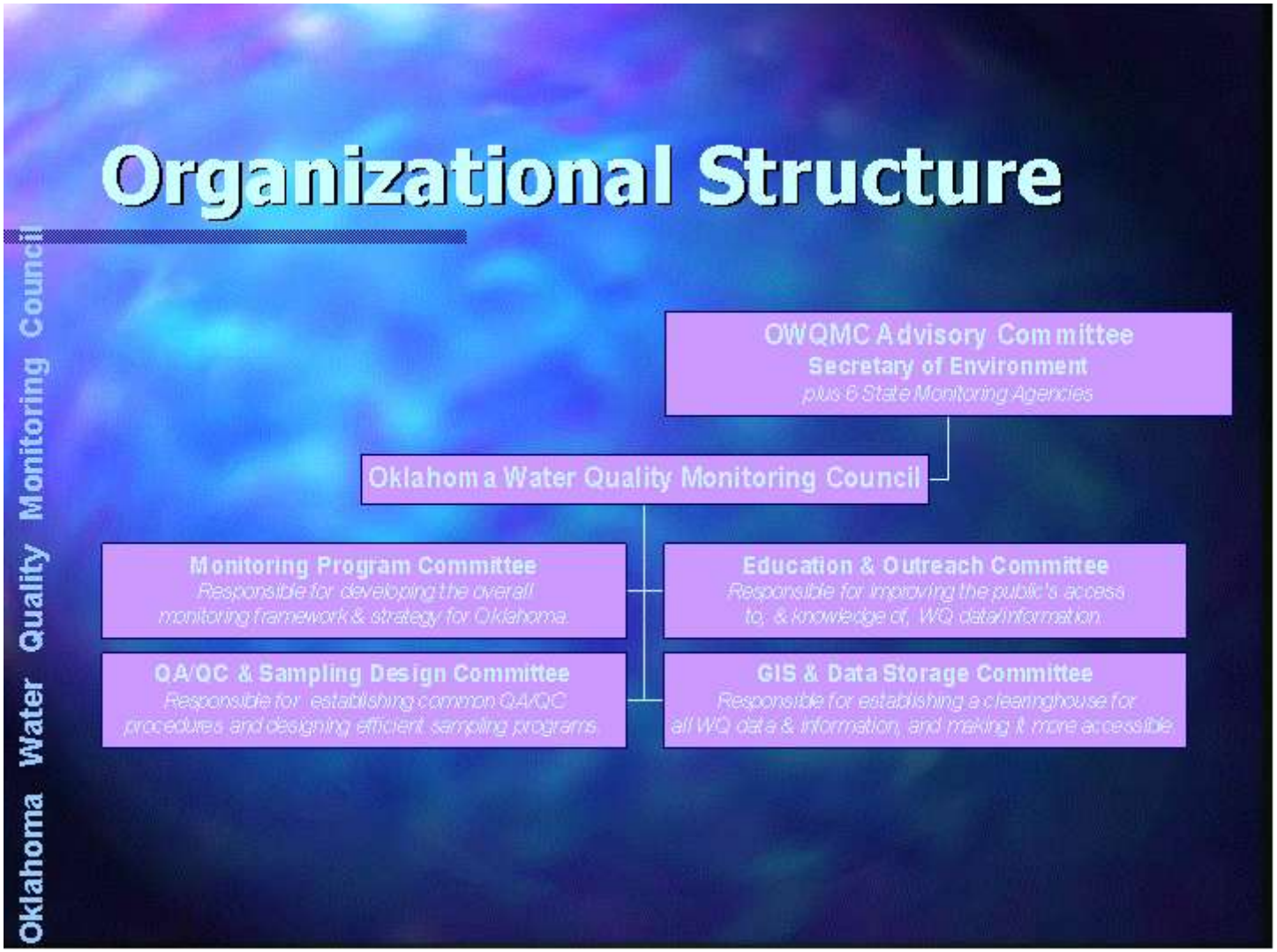
Monitoring Councils Hierarchy of Needs



Oklahoma Water Quality Monitoring Council

- An advisory body to the Secretary of the Environment, the 25 member Council includes:
  - 8 State environmental agencies
  - 5 Federal environmental agencies
  - 3 local government representatives
  - 2 Tribal environmental representatives
  - 2 environmental organization representatives
  - 2 academicians from State universities
  - 3 at-large members
- J.D. Strong, Chairman, Office of the Secretary of Environment

OWQMC


Organizational Structure
Oklahoma Water Quality Monitoring Council
OWQMC Advisory Committee
Secretary of Environment
plus 6 State Monitoring Agencies
Oklahoma Water Quality Monitoring Council
Monitoring Program Committee
Responsible for developing the overall monitoring framework & strategy for Oklahoma.
Education & Outreach Committee
Responsible for improving the public's access to, & knowledge of, WQ data/information.
QA/QC & Sampling Design Committee
Responsible for establishing common QA/QC procedures and designing efficient sampling programs.
GIS & Data Storage Committee
Responsible for establishing a clearinghouse for all WQ data & information, and making it more accessible.

OWQMC Goals

- Provide a forum for effective communication, cooperation, and collaboration among individuals and organizations involved in monitoring
- Develop and implement collaborative, watershed based monitoring strategies
- Document monitoring activities using state of the art tools such as GIS-based mapping techniques
- Promote the use of quality assured procedures for sample collection, analytical methods, assessment, and data management

Lake Michigan Monitoring Coordination Council (LMMCC)

- Organized to support the Lakewide Management Plan (LAMP) and respond to other Lake Michigan resource issues. Includes members from:
  - 2 from states of MI, IN, IL, WI
  - 7 from Federal Agencies
  - 2 Tribal Authorities
  - 2 Business, industry, consultants
  - 1 Agriculture
  - Local, volunteer monitoring groups
  - Sea Grant/University-based Institutes
  - Lake Michigan Lakewide Management Plan Forum
  - Local Government/planning agencies
  - Great Lakes Fisheries Commission

LMMCC Structure

- Secretariat support provided by Great Lakes Commission - funded by US EPA Lake Michigan team
- Chaired by 2 members (1 Federal and 1 State rep)
- Media based Monitoring Network Workgroups (Tributaries, GW, Fisheries, Wetlands, Open Lake, etc) focused on addressing common considerations (monitoring objectives, network designs, methods comparability, QAQC planning, database sharing, and data analyses approaches). Use existing groups when possible (GLFC).
- Meet twice per year, interim conf calls for workgroups

LMMCC GOALS

- Document monitoring activities, ID data gaps
- Contribute to developing monitoring framework
- Establish and maintain collaborative partnerships linking organizations and initiatives
- Encourage comparable, documentable monitoring
- Support linked info networks
- Provide guidance/assistance to improve awareness of monitoring

Opportunities: NWQMC and State/Regional Council Connections

- Working together (virtual Council) toward common goals – Networks, Methods, Data, Interpretation, Reporting and Outreach
- Active involvement at Council meetings and as members of Council Work Groups
- Important not to duplicate efforts with NWQMC activities and to share results between Councils
- Help guide activities of NWQMC

MONITORING COMMUNITIES & STAKEHOLDERS...

Communities

WS #1

- A group of people with a common characteristic or interest who interact together within a larger society. Three broad categories of "community"
  - **geographic** (such as watersheds, towns, cities, states, regions)
  - **issue-based** (such as environment, economic and community development, human rights, the arts, education, human development, religion);
  - **affinity-based** (such as racial/ethnic, religious, ideas and values, classmates, coworkers).

Stakeholders

People who are interested in, who are affected by, or who could possibly affect activities related to monitoring

MONITORING COMMUNITIES?

COMMUNITIES are groups of people organized around or who share a common location, characteristic, or interest

- Geographic regions
- Levels of governments
- Businesses & Regulated Communities
- Waterbody types
- Professional fields
- Others??
- Volunteer Monitors
- Academia
- Industries (Ag, Mining, Timber, etc)

MONITORING STAKEHOLDERS?

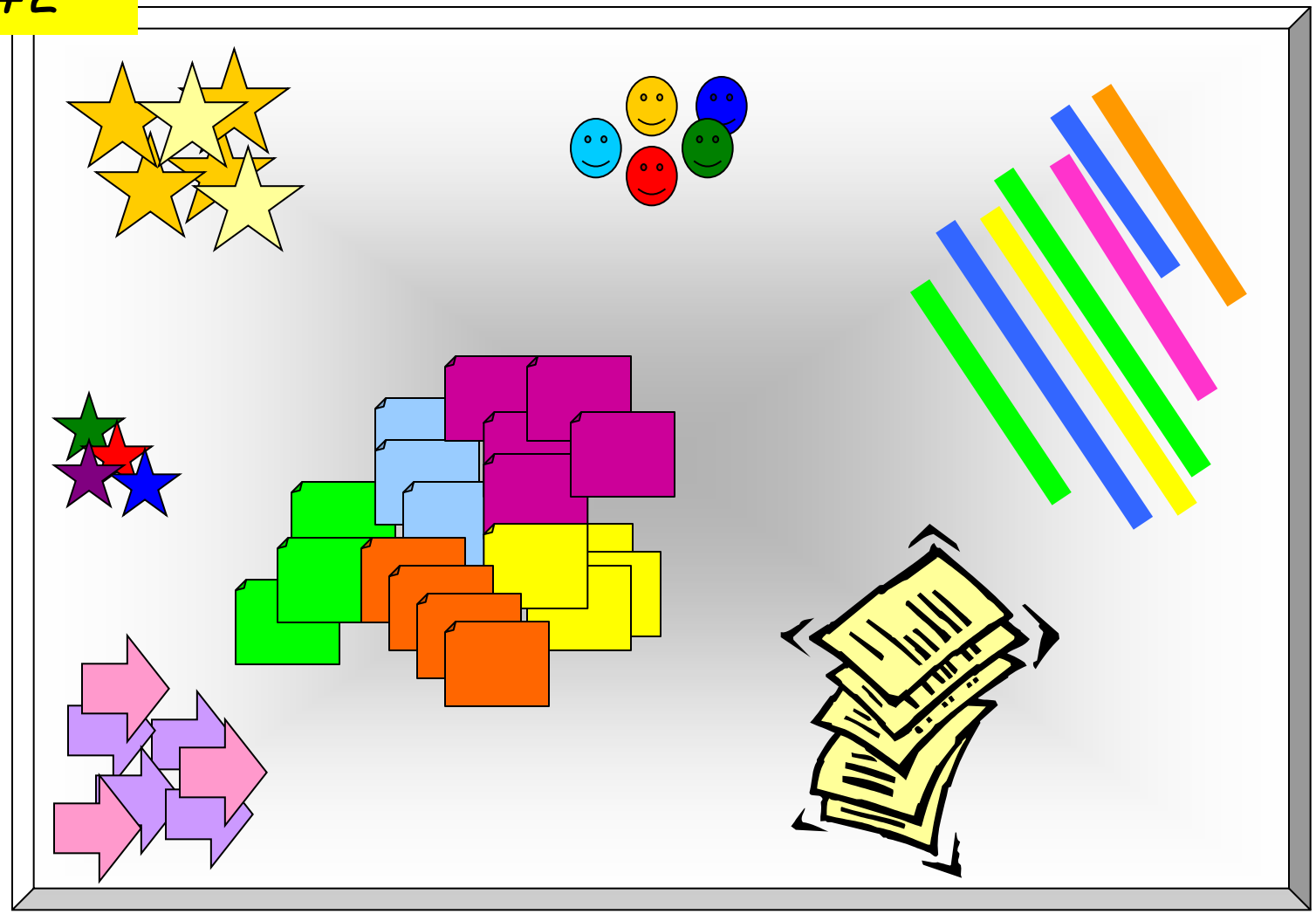
STAKEHOLDERS are individuals, groups, and institutions who are interested in, who are affected by, or who could possibly affect activities related to monitoring

- Businesses & Regulated Communities
- Residents
- Watershed & Environmental Orgs
- Others??
- Levels of governments
- Industries (Ag, Mining, Timber, etc)


BUILDING A MONITORING MAP...

Building a monitoring map
What does monitoring look like in your state or region?

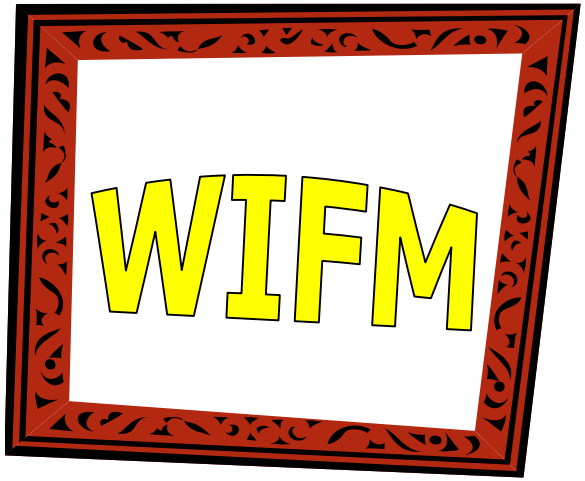
WS #2



Initial Mapping--Concepts/relationships to map—GETTING A PICTURE OF WHERE WE ARE…

- What does monitoring look like in your state/region?
- What kind of monitoring is done? By whom?
- Where does the data go? Who uses data? What is data used for?
- How are decisions about monitoring made?

GETTING TO THE TABLE...WHAT'S IN IT FOR ME?



Getting People to the Table

Refer to your monitoring maps…What are some of the challenges/barriers you see to getting people to the table?

- Addressing most challenges/barriers will be related identifying "WIFM" for various components of monitoring community and stakeholder groups.
- HOW do we "frame" WIFM for different segments of the monitoring community or stakeholders?

What's in it for me?

MORNING WRAP-UP...

DRAFT OUTLINE FOR PART 2

Time	
12:30-12:45	Review of morning—where are we now & opportunity for participants to bring up any issues they want to make sure are addressed.
12:45-1:15	Visions & Missions… In a perfect world… visioning the future, roles of Councils in getting there 30 min large group discussion
1:15-2:15	Roles to Goals & Activities 30 minute small group, 30 minute report back
2:15-3:15	Asset Mapping 30 minute small group, 30 minute report back
3:15-3:30	Wrap-up—What is everyone taking home with them—one tangible thing we can do when they get home

VISIONS & MISSIONS...

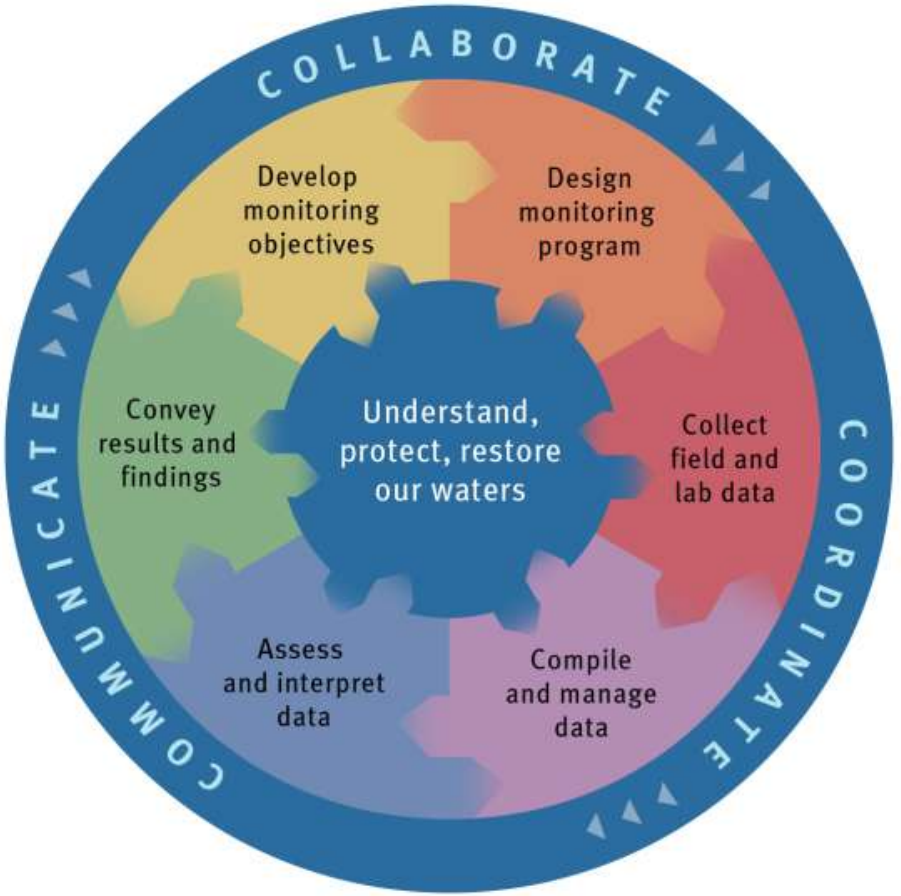
VISIONS…

In a perfect world…

Where we were truly able to understand, protect, and restore our waters…

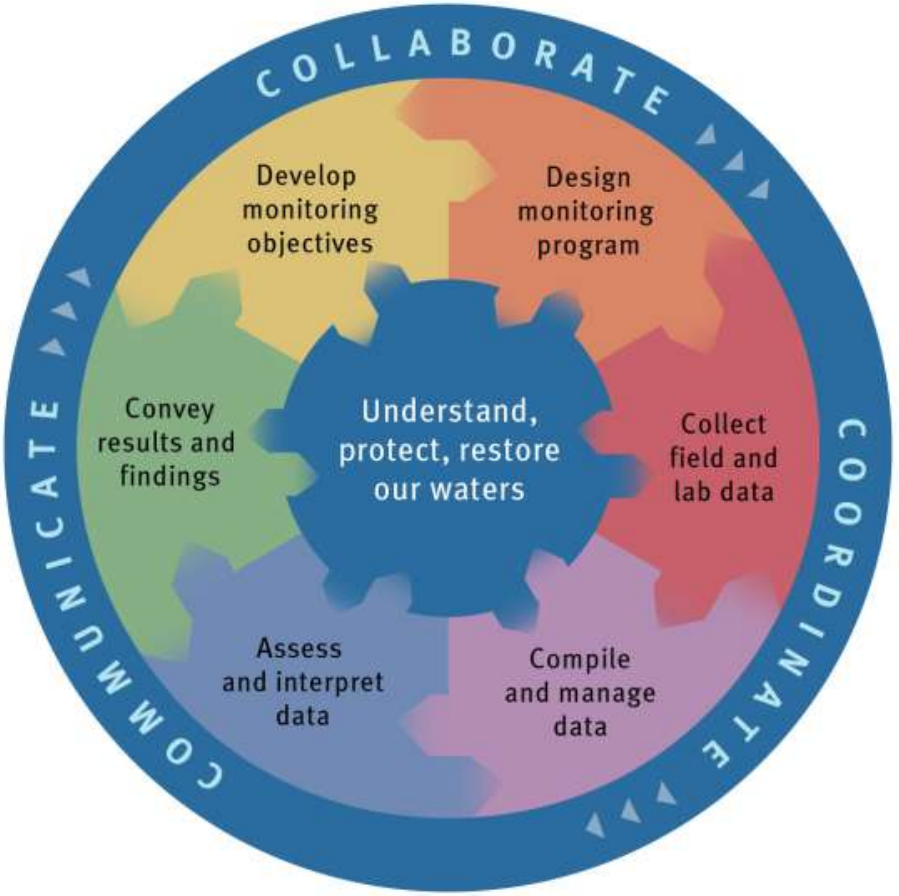
What would monitoring "look like"?

What would be different about your map?



MISSIONS/ROLES

- What role(s) can a Council play in realizing the vision?



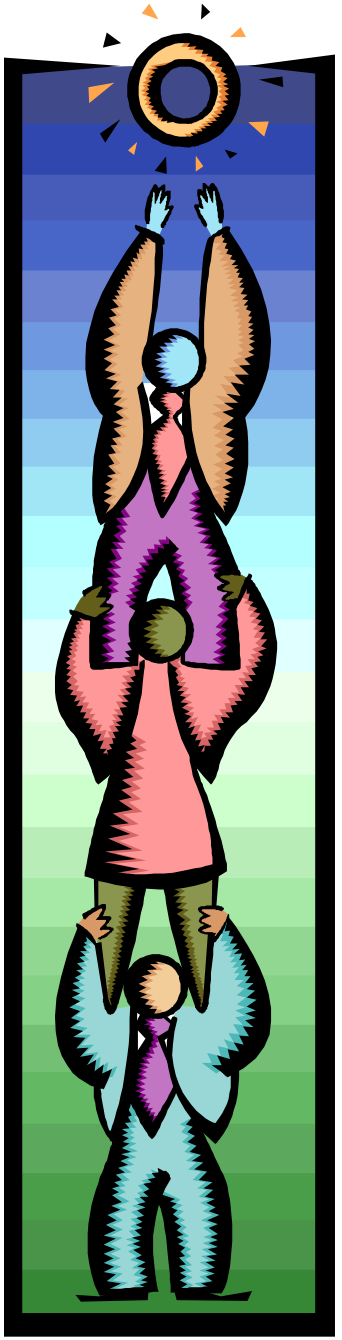
GOALS & ACTIVITIES

Goals

...Thinking and planning strategically in the long term, while…

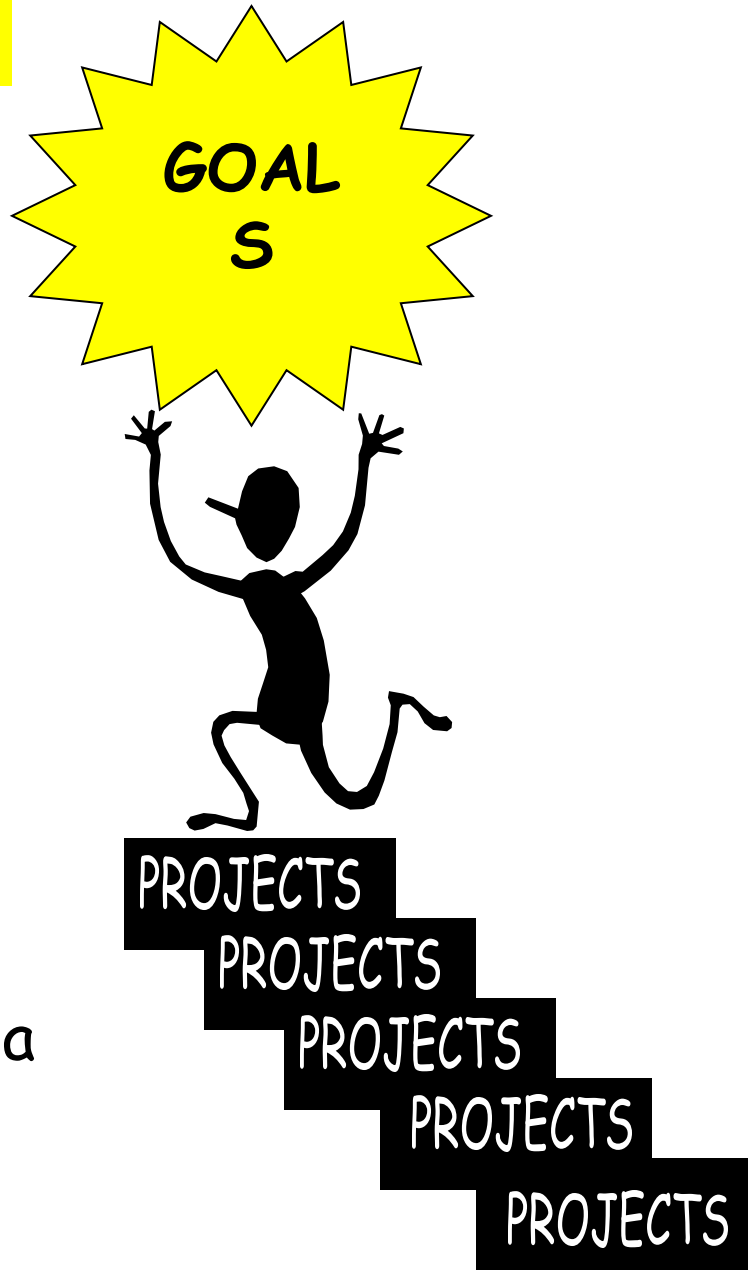
Activities

Developing and delivering products in the short term



ALWAYS remember…

- **Specific projects MUST be tied to overall mission & goals**
  - **Everything** you do should have a clear and direct connection to your mission & goals
  - **Everything** you do should be a step along the way to achieving your goals!!!



- Be able to ask and answer…
  - Why are we doing this?
  - What do we want the project to accomplish?
  - *How does the project further our goals?*
  - *How can we use this project to further our goals?*

Defining Goals & Identifying Activities

WS #3

Council Role/Mission in reaching the vision	Goals	Activities (short & long term)

IDENTIFYING & MAPPING ASSETS

What Is An Asset Map?

- A drawing that illustrates the ***skills and resources*** of each group or individual as they relate to a central issue or activity.

Benefits of Asset Mapping

- Identifies assets of individuals, organizations, or institutions.
- Identifies existing or potential partnerships.
- Identifies needs.
- Helps with long-term planning.

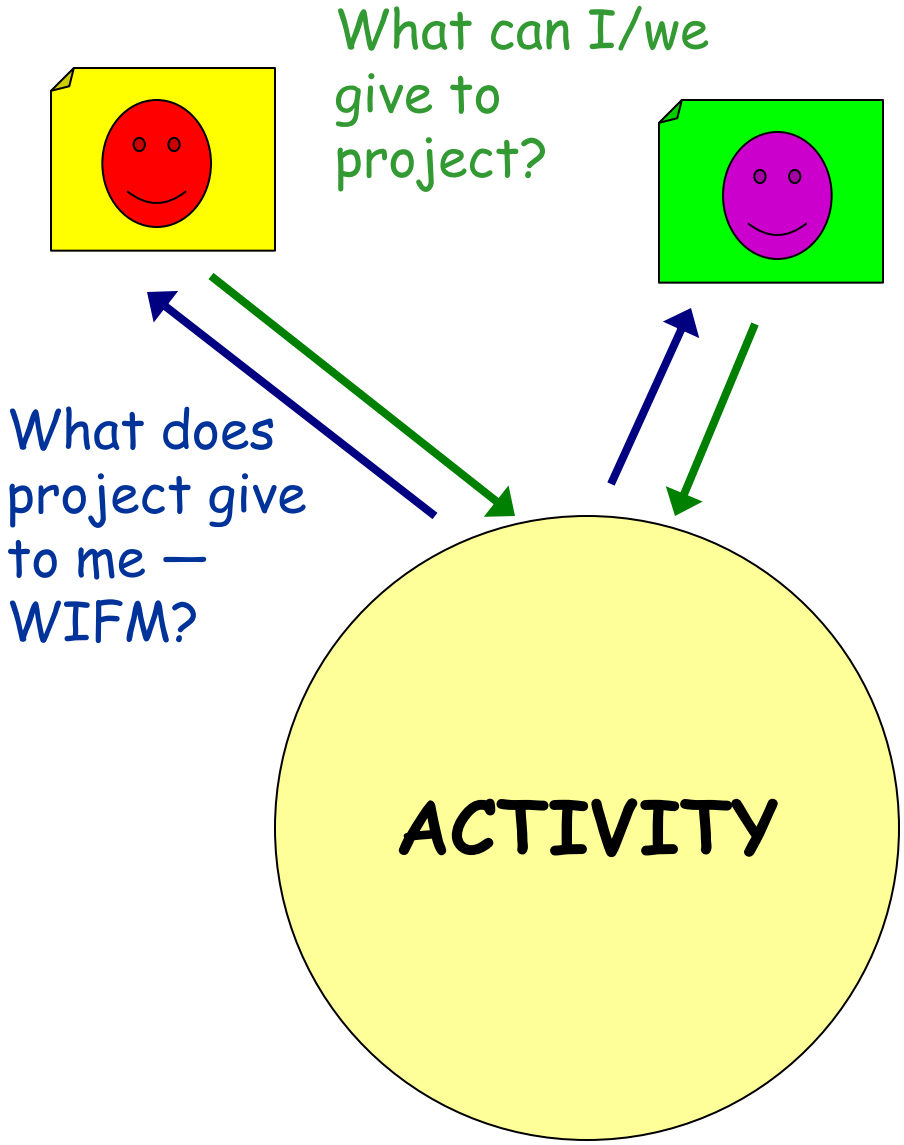
Asset Map Exercise

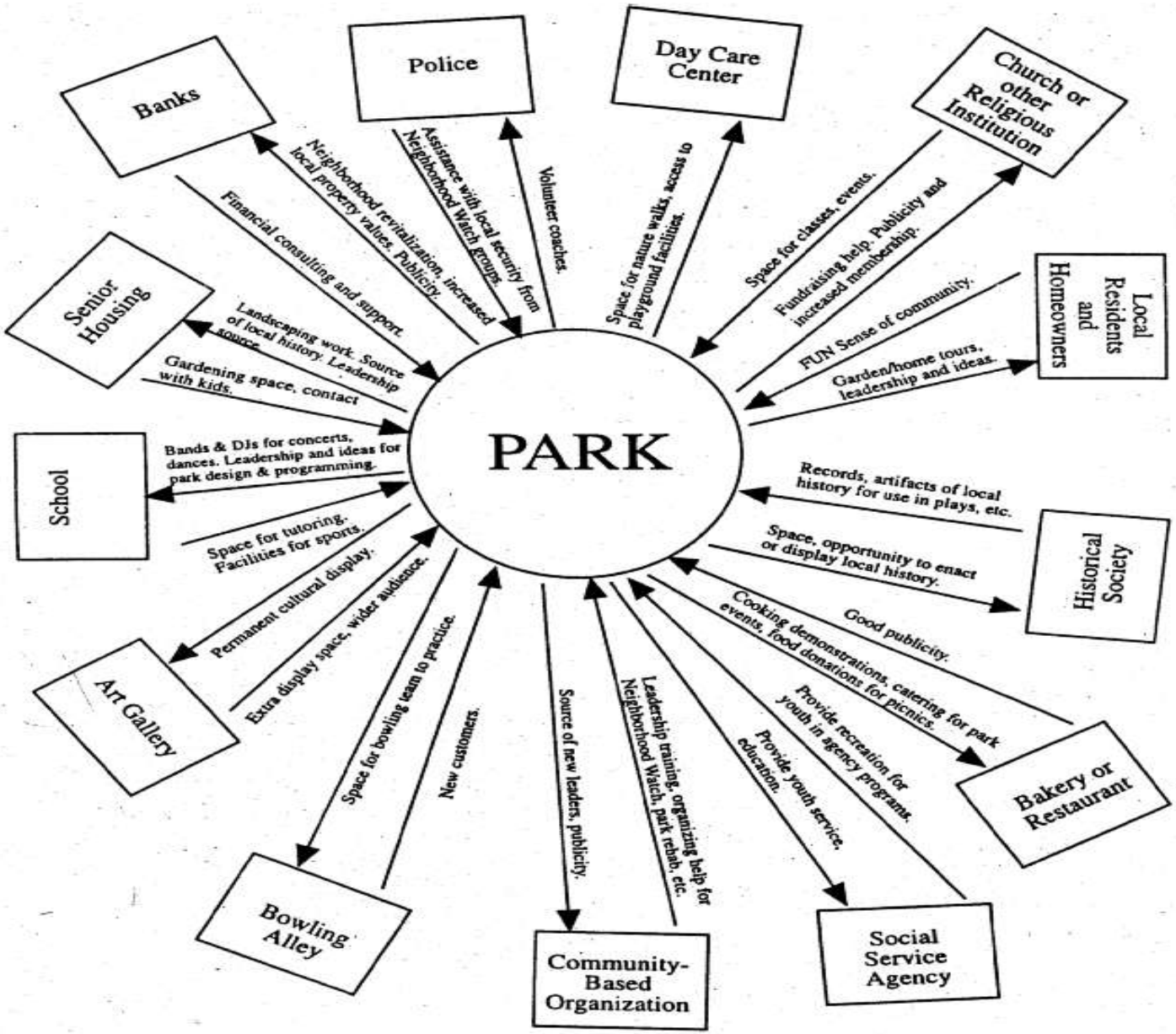
- The subject and center of your asset map will be one of the activities you identified.

WS #4

Asset Mapping

1. Decide on an activity to map (this activity will become the "subject" of the map).
2. List the assets (skills, resources) that each member of the group can bring to the activity—individually and through their agency/organization.
3. List the assets (benefits) of the activity.
4. Identify and briefly describe the mutually beneficial relationships that exist/can be built between the group members (selected in #1) and the subject based on their assets.
4. Map these relationships as shown.




PARK
Banks
Police
Day Care Center
Church or other Religious Institution
Senior Housing
Local Residents and Homeowners
School
Historical Society
Art Gallery
Bakery or Restaurant
Bowling Alley
Community-Based Organization
Social Service Agency
Neighborhood revitalization, increased local property values. Publicity.
Financial consulting and support.
Assistance with local security from Neighborhood Watch groups.
Volunteer coaches.
Space for nature walks, access to playground facilities.
Space for classes, events.
Fundraising help. Publicity and increased membership.
Landscaping work. Source of local history. Leadership source.
Gardening space, contact with kids.
FUN Sense of community.
Garden/home tours, leadership and ideas.
Bands & DJs for concerts, dances. Leadership and ideas for park design & programming.
Space for tutoring, Facilities for sports.
Records, artifacts of local history for use in plays, etc.
Space, opportunity to enact or display local history.
Permanent cultural display.
Extra display space, wider audience.
Cooking demonstrations, catering for park events, food donations for picnics.
Good publicity.
Space for bowling team to practice.
New customers.
Source of new leaders, publicity.
Leadership training, organizing help for Neighborhood Watch, park rehab, etc.
Provide youth service, education.
Provide recreation for youth in agency programs.

WORKSHOP WRAP-UP

- ✓What is one specific thing everyone can take home with them?
- ✓Did their ideas about Councils change at all?